

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below.

1. (Currently Amended) A method of calculating a net present value (NPV) of an average spot basket option, comprising:

reading an evaluation date into a memory;

reading contract data for one or more underlyings belonging to a basket into the memory;

reading market data for one or more underlyings belonging to the basket into the memory;

reading an indication of whether the NPV is designated for a call or a put into the memory;

calculating a first moment of a sum of spot values $S_j(t_i)$ of two or more underlyings of the basket;

calculating a second moment of the sum of spot values $S_j(t_i)$ of two or more underlyings of the basket, wherein the first and second moments are approximate log normal distributions; and

applying a Black-Scholes formalism to the first and second moments to determine the net present value of an average spot basket option,

wherein said calculating the first moment includes using a first equation if the absolute value of a value calculated as a function of both a subset of the contract data and a subset of the market data is greater than a predetermined number and using a second equation if the absolute value of the value is less than or equal to the predetermined number.

2. (Original) The method of claim 1, wherein the first moment of the sum of spot values $S_j(t)$ of all underlyings of a basket is given by:

$$\langle M \rangle = \frac{1}{N} \sum_{j=1}^{N_A} S(t_E) e^{g_j(t_{m+1}-t_E)} \Sigma_j , \text{ if } t_E < t_1 \text{ then set } m=0.$$

3. (Previously Presented) The method of claim 2, wherein the first moment is a modified forward spot, \tilde{F} , for the two or more underlyings.

4. (Previously Presented) The method of claim 1, wherein the second moment of the sum of spot values $S_j(t_i)$ of two or more underlyings of a basket is given by:

$$\langle M^2 \rangle = \frac{1}{N^2} \sum_{j=1}^{N_A} \sum_{k=1}^{N_A} S_j(t_E) S_k(t_E) e^{(g_j + g_k + \rho_{jk} \sigma_j \sigma_k)(t_{m+1} - t_E)} \Sigma_{jk}, \text{ if } t_E < t_1 \text{ then set } m=0.$$

5. (Original) The method of claim 1, further comprising:
calculating a modified strike value.

6. (Original) The method of claim 5, wherein the modified strike value is given by:

$$\tilde{K} = K - \sum_{j=1}^{N_A} \frac{1}{N} \sum_{i=1}^m S_j(t_i), \text{ wherein } t_m \text{ is latest instant with an already fixed spot.}$$

7. (Original) The method of claim 1, further comprising:
calculating a first modified normal distribution function.

8. (Original) The method of claim 7, wherein the first modified normal distribution function is given by:

$$N(+\tilde{d}_1), \text{ wherein } \tilde{d}_1 = \frac{\ln \frac{\tilde{F}}{\tilde{K}}}{\nu} + \frac{\nu}{2}.$$

9. (Original) The method of claim 1, further comprising:
calculating a second modified normal distribution function.

10. (Original) The method of claim 9, wherein the second modified normal distribution function is given by:

$$N(+\tilde{d}_2), \text{ wherein } \tilde{d}_2 = \tilde{d}_1 - v.$$

11. (Cancelled)

12. (Previously Presented) The method of claim 1, further comprising:
comparing the determined net present value to a predetermined value; and
if the net present value is greater than the predetermined value, then displaying a first message on an output device, and
if the net present value is less than the predetermined value, then displaying a second message on the output device.

13. (Cancelled)